

AUGUST
1951

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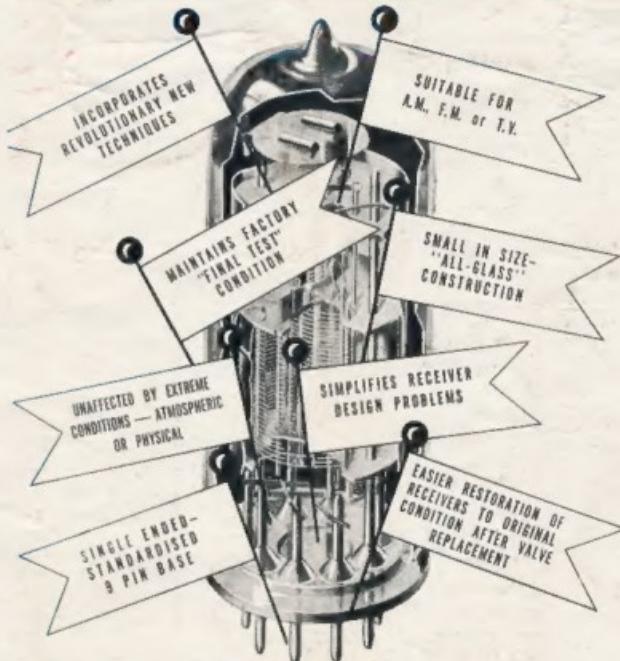
Amateur Radio

JOURNAL OF
THE WIRELESS
INSTITUTE OF
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EDITORIAL



A.O.C.P. Examination by the Quiz Method?

The introduction in New Zealand of the "quiz" type of examination for candidates sitting for the Amateur Operator's Certificate of Proficiency is, in the opinion of those who have investigated it, a very fair system by which to judge a candidate's ability and knowledge of his subjects. As many of us know, the system was used to advantage in the Services and has also found favour in Educational Departments, both in this country and abroad.

The system, correctly designed and operated, not only conveys to the examiner the information he requires regarding a candidate's knowledge, but it substantially reduces the amount of correcting work involved in a written examination, and quickly indicates whether a candidate really knows his work even if he is unable to put it on paper in precise words.

Years ago when the science of wireless communication was in its infancy compared to the present high standard, a number of questions with two or three alternative questions was deemed sufficient to gauge a candidate's knowledge. But today the old system is inadequate to cover the phases of the art, included in the standard required for the A.O.C.P. Some candidates who, by circumstances of learning, happened to have studied closely the few subjects chosen by the examiner, fail despite a wider knowledge, because they concentrated their studies on subject matter not included in the examiner's questions.

In seven questions it is obviously impossible to cover the knowledge required by the candidate. From the candidate's point of view it is just as difficult for him to keep in his mind the full range of knowledge of transmission and reception as is required of him to sit for the A.O.C.P. Why then should he not have the opportunity to bring to his mind under the beneficial "quiz" method the correct answer to a given question? If he knows his work he will answer correctly. If he doesn't know his work he will answer incorrectly or he will guess. He may guess right—he may guess wrong—but the system correctly presented will leave little doubt in the mind of the examiner concerning the ability or otherwise of the candidate before him.

It is not intended to infer that A.O.C.P. candidates should be examined more sternly, but rather more justly; that the examination be such that he can convey to the examiner a more complete picture of the scope of his knowledge rather than be confined to a minority of questions which, circumstantially, may fail him despite his wider knowledge whilst another will pass, with less knowledge, the same questions.

Federal Executive has been instructed by Federal Council to press for the introduction of the system in Australia. To us the advantages are so readily apparent we are hopeful the system will find favour in official circles as it has done in New Zealand.

FEDERAL EXECUTIVE

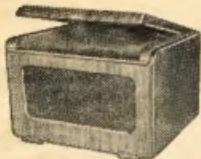
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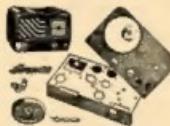


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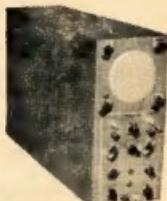
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HOW MUCH "C"?

BY R. M. WINCH*, VK2OA

How many capacitors have you taken out of disposals equipment and put on one side because you did not know their size? How many moulded mica capacitors with the markings rubbed off are there in your junk box? Are you wondering whether that little tuning capacitor is 100 pF., or perhaps only 75 pF.?

In other words, how often have you asked yourself, "How much C?" Practically every piece of equipment you have built, and will build, contains as many, if not more, capacitors as resistors and accuracy of C is just as important as accuracy of R. An ohm meter is regarded as an essential in every shack, yet C is guessed at or the manufacturer's markings are relied upon implicitly, merely because no means are at hand to make a measurement of C. Nevertheless, C is not very hard to measure.

There are several ways of measuring capacitance. It can be measured by applying a known voltage of a known frequency and measuring the resultant current flow. This actually measures the impedance of the capacitor, but for all practical purposes the accuracy is good enough. The disadvantages of this method make it unsuitable for general use in the Ham shack. Another method which gives good measurement accuracy is the bridge. However, a reasonably accurate capacitance bridge is quite an item of equipment in any man's language.

There is another method of measuring capacitance which can be made to give very good results with a minimum of gear and not much work. By connecting the unknown capacitor across a known inductor and measuring the resonant frequency of the combination with a grid dip meter, the value of the capacitor may be derived from a comparatively simple formula.

If you have not already built your self a grid dip meter which has a wide range and is fairly accurately calibrated it is time you did so. You will have no idea just how useful an instrument it is until you have built—and used one.

However, the simple LC circuit shown in Fig. 1 is not very suitable for measuring a wide range of capacitance. With only one standard inductor the frequency range required to measure a useful range of capacitance is a little beyond the average grid dip meter. A simple calculation will show that a range of 10 pF. to 0.1 uF would require a frequency range of 100 to 1. Again, it is necessary to know the inductance of our standard inductor rather accurately. We also need

to know the self-capacitance of our standard inductor. These disadvantages can be overcome by a small re-arrangement of the circuit. Firstly, the low frequency end of our measuring range can be brought within practical limits by using a known capacitor in series with the capacitor under test. This limits the maximum amount of capacitance in circuit. The high frequency end can be similarly dealt with by shunting a capacitor across the standard inductor; thus setting a minimum to the amount of capacitance in circuit.

These two modifications have further advantages which are not quite so obvious. The shunt capacitor can be adjusted to any convenient fraction of the series capacitor by a frequency ratio measurement. This makes it unnecessary to know the size of the inductor. The self-capacitance of the inductor has disappeared into the shunt capacitor and may be forgotten.

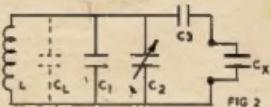


Fig. 2 is the circuit of a practical unit using these principles. L is a coil of convenient size (in the author's case, the oscillator coil from a defunct FS6). C₁ is the self-capacitance of L. C₂ is a fixed 100 pF. mica condenser, C₃ is a 3-30 pF. tubular trimmer (again from disposals). C_x is 0.005 pF. $\pm 2\frac{1}{2}\%$, and C_x is the capacitor being measured. C₁ + C₂ + C_x is adjusted to equal 125 pF.

When C_x has a capacitance of infinity (short circuit) the total capacitance in circuit is 5125 pF. When C_x is zero (open circuit) the total capacitance is 125 pF. If F₁ is the resonant frequency when C_x is infinity, F₂ the resonant frequency when C_x is zero, and F₃ the resonant frequency when C_x is some value intermediate between infinity and zero, then—

$$F_1 = F \sqrt{\frac{125}{5125}}$$

and

$$F_2 = F \sqrt{\frac{5125}{125 + \left(\frac{5000 \times C_x}{5000 + C_x}\right)}}$$

Since L, C₁, C₂ and C_x are fixed, and permanent quantities, F₁ may be calculated for various values of C_x and curves plotted so that C_x may be read off directly. The value of F should be chosen to suit the ranges of your grid dip meter. In the author's case the lower limit of one range on the grid dip meter is 870 Kc., so a value of 900 Kc. was chosen for F. This makes F₁ equal to 5762 Kc. and gives a useful range of from 0 pF. to 0.1 uF. with a minimum accuracy of 10%.

The construction of the unit is not at all critical but a little care should be taken to make the wiring rigid. If a slug tuned inductor is used it is recommended that a locknut be placed on the slug adjusting screw so that it may be locked permanently in position after the final adjustment. In use, the normal coupling to the grid dip meter to give a discernible movement of the meter needle is necessary to obtain accurate measurements.

L and C_x are adjusted as follows: Short out the C_x terminals and adjust L so that the resonant frequency is 900 Kc. Now open circuit C_x and adjust C_x to give resonance at 5762 Kc. If the circuit will not resonate to 5762 Kc. at any setting of C_x this indicates that C_x has a value which is not close enough to 100 pF. It may be necessary to change C_x if the highest resonant frequency is lower than 5762 Kc. If the resonant frequency with C_x at maximum setting is higher than 5762 Kc. it will be necessary to change C_x or else add another small condenser in parallel with C_x to bring it closer to its normal value of 100 pF. Check again with C_x short circuited and if necessary readjust L. Re-check at 5762 Kc. and then you are ready to measure the capacitance of anything between a short piece of twine lead and your grandmother's false teeth.

To save wear and tear on your slide rule, a table is appended which gives—

Col. 1—Values of C_x.

Col. 2—Corresponding values of $125 + \left(\frac{5000 \times C_x}{5000 + C_x}\right)$ in pF.

Col. 3—Resultant resonant frequency in Kc.

Infinity	5125	900
0.1 uF.	4887	921.3
0.9 uF.	4864	924
0.08 uF.	4832	927
0.07 uF.	4791	931
0.06 uF.	4741	936
0.05 uF.	4670	943
0.04 uF.	4570	953
0.03 uF.	4411	970
0.02 uF.	4125	1003
0.01 uF.	3459	1095
0.009 uF.	3341	1115
0.008 uF.	3201	1139
0.007 uF.	3042	1168
0.006 uF.	2830	1207
0.005 uF.	2625	1257
0.004 uF.	2347	1330
0.003 uF.	2000	1440
0.002 uF.	1524	1650
0.0015 uF.	1279	1801
0.001 uF.	958	2081
900 pF.	888	2162
800 pF.	815	2256
700 pF.	739	2370
600 pF.	661	2500
500 pF.	580	2675
400 pF.	495	2896
300 pF.	408	3189
200 pF.	317	3618
150 pF.	271	3914
100 pF.	223	4314
90 pF.	213	4415
80 pF.	203.7	4514
70 pF.	194	4636
60 pF.	184.3	4745
50 pF.	174.5	4878
40 pF.	164.7	5021
30 pF.	154.8	5180
20 pF.	144.9	5350
10 pF.	135	5545
0	125	5762

Push Pull Cascode Crystal Converter

BY C. H. CASTLE,* VK5KL

ALWAYS on the look out for something better and to try anything new, we are striving for improvement each year. The author was more than satisfied with the line-up of RL37 grounded grid series plate tuned r.f., 9002 mixer, 9002 osc., and 9002 cathode follower combination of last year, but the introduction of crystal converters was very impressive and the advantages were so obvious that it was labelled as a must for the new converter and next DX season on 50 Mc.

As soon as the DX waned early in 1950, thoughts turned to designing a new front end; something that must include all the best advantages known.

The points strived for were:

- * High Signal to Noise Ratio.
- * Sensitivity.
- * Selectivity.
- * Stability of Oscillator.
- * Accurate Frequency Calibration.
- * Absence of Birdies.

One fault of tuning a converter with the oscillator near the signal frequency is that a highly accurate dial is unobtainable, however by using a converter with the osc. xtal controlled, no dial is needed on the converter itself and number one bug-bear ousted.

The converter osc. being fixed, one must use the receiver the converter is fed into, as the tunable intermediate frequency. Having a BC433B Command receiver available (tuning 3 to 6 Mc.), this was ideal for the job, and by choosing a 9.4 Mc. xtal and taking off the 5th harmonic, giving 47 Mc. for the converter osc. 50 to 53 Mc. is tuned by actually tuning 3 to 6 Mc. on the Command receiver.

The dial on the Command gives both good band spread and the accurate calibrations are easily converted to read as at 50 Mc. A signal on 50.2 will be tunable at 3.2 Mc. and a signal at 50.5 at 3.5 Mc., and so on. Here we have obtained three of our wanted ideals: stability, accurate frequency calibration, and selectivity due to the double conversion.

ABSENCE OF BIRDIES

These beats are caused in a lot of ways: Strong signals beating with your converter oscillator or the i.f. receiver oscillator, and beating at one or both i.f. frequencies; one oscillator harmonic beating with the other or even with the b.f.o. A lot can be traced to coupling of circuits via the power supply leads.

To eliminate the causes, the trouble was tackled from the start on the design board. Special condensers are used in series with all B positive and filament leads above ground. Connected as near as possible to the components and at the other end the lead goes away through the chassis. These condensers are made of pieces of brass plate $1\frac{1}{2}$ " x $\frac{1}{8}$ " and have a thin sheet of mica for the dielectric to the chassis. They keep down the inductance factor, and by-pass

all r.f. getting back into the power supply, or coupling to other stages via the wiring.

Small insulating bushes were made from springback terminals. After passing through the chassis, all the filament and B positive wiring is outside of the compartments housing the r.f. components. If you still get beats, I suggest you try these series condensers, one in the B positive lead to the mixer oscillator circuit in your i.f. receiver, and also in the b.f.o. B positive lead.

LAYOUT

The chassis is $15\frac{1}{2}$ " x $8\frac{1}{2}$ " x $3\frac{1}{4}$ ", made of 18 gauge copper. Large, no doubt, for the job, but then the special condensers take up some room and it is handy to be able to work in comfort. Space has not been sacrificed for efficiency. The signal enters one end and passes straight down the centre to the output. The xtal oscillator is the only stage out of line. All leads from the condensers are of copper foil $3/16$ " wide as also are the earthing leads.

The xtal oscillator section is entirely shielded and the link taken through a piece of tubing into the mixer compartment. A shield is run across the chassis and mounted so that it divides the four grid connections in each RL37 and to which they are soldered. This makes the earth connections short and also shields the input from the output circuit in the r.f. stage.

A small shield was also mounted to isolate the filament r.f. chokes of the

RL37s from the 6J6 plate chokes where they run parallel to each other. All shields are of copper.

Now for the converter itself. Several months' work has gone into the design, layout and testing of each stage for maximum performance.

CRYSTAL OSCILLATOR

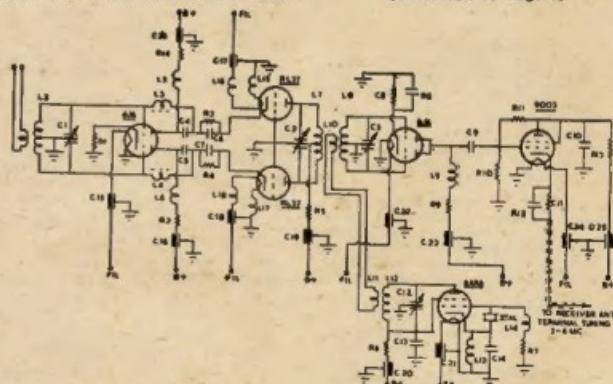
The circuit used is a 6AK6 tritet. After several weeks of testing harmonic oscillators of different varieties, this was chosen because of most reliability. Once output is obtained at 47 Mc., the circuit constants were varied until maximum output was obtained with the least plate voltage. The L to C ratios are the important factor. The output is link coupled to the mixer by a small two-turn link at the centre of the mixer coil and by a one-turn at the cold end of the oscillator plate coil.

MIXER

Tube chosen is the 6J6 because of the good signal to noise ratio obtained by using a push pull input to the grids and parallel plate output. This also tends to cancel out oscillator conversion noises, etc.

It is coupled to the cathode follower by a 1800 Kc. i.f. transformer which has the paddler condensers taken off and the two windings connected in series. This will then resonate around 4 Mc. and when placed in the circuit is broad enough to pass signals from 3 to 6 Mc.

(Continued on Page 6)



C1, 2, 3—15 pF. butterfly.
C4, 5—50 pF. silver mica.
C6, 7—0.001 uF. sil. mica.
C8, 10—0.0005 uF. mica.
C9—0.0001 uF. mica.
C11—0.001 uF. mica.
C12—8 pF. butterfly.
C13—0.01 uF. mica.
C14—3-30 pF. trimmer.
C15 to C26—Special condensers, see text.
R1—60 ohms.

R2, 5, 9, 12, 13, 14—1,000 ohms.
R3, 4—130 ohms.
R5—250 ohms.
R7—50,000 ohms.
R8—450 ohms.
R10—5,000 ohms.
R11—200,000 ohms.
L1—2 turns.
L2, 7, 8—12 turns, $\frac{1}{2}$ " dia. inside, 16 gauge.
L3, 4—24 turns, $\frac{1}{2}$ " dia. slug tuned.

L5, 6—18 turns, $\frac{1}{2}$ " dia., 16 gauge.
L8—Reversed 1,800 Kc. i.f. see text.
L10, 11—2 turn link.
L12—11 turns, $\frac{1}{2}$ " dia. inside, 16 gauge.
L13—24 turns, $\frac{1}{2}$ " dia. slug tuned.
L14—2.5 mH. RFC.
L15, 16, 17, 18—24 g. wire wound full length on 1 meg. 1 w. resistors.

Army VT Numbers and Commercial Numbers

VT No.	Commercial No.	VT No.	Commercial No.	VT No.	Commercial No.	VT No.	Commercial No.	VT No.	Commercial No.
VT1	WE203A*	VT60	859	VT108	450TH	VT159	Spec. Tube	VT217	811
VT2	WE 203B	VT62	801, 801A	VT109	2051	VT160	Spec. Tube	VT218	100TH
VT3	*	VT63	46	VT111	5BP4/1802P4	VT161	12SA7	VT219	*
VT4A	*	VT64	800	VT112	6ACT/1852	VT162	12SJ7	VT220	250TH
VT4B	211	VT65	6C5	VT114	5T4	VT163	6C8G	VT221	3QS8GT
VT4C	JAN 211	VT65A	6C5G	VT115	6L6	VT164	1619	VT222	884
VT5	WE215A	VT66	6F6	VT115A	6LG	VT165	1624	VT223	223
VT6	212A*	VT66A	6F6G	VT116	6SJ7	VT166	371A	VT224	RK34
VT7	WX12*	VT67	30 Spec.	VT116A	6SJ7GT	VT167	6K8	VT225	307A
VT8	UV204*	VT68	6B7	VT116B	6SJ7Y	VT167A	6K8G	VT226	3EP1/1806P1
VT10	*	VT69	6D6	VT117	6SK7	VT168A	6Y6G	VT227	7184
VT11	*	VT70	6F7	VT117A	6SK7GT	VT169	12C8	VT228	8012
VT12	*	VT72	842	VT118	832	VT170	1E5GP	VT229	6SL7GT
VT13	*	VT73	843	VT119	2X2/879	VT171	1R5	VT230	350A
VT14	*	VT74	524	VT120	954	VT171A	1R5 (loctal)	VT231	6SN7GT
VT16	*	VT75	75	VT121	955	VT172	1S5	VT232	E1148
VT17	880	VT76	76	VT122	930	VT173	1T4	VT233	6SE7
VT18	*	VT77	77	VT123	RCA A5586	VT174	3S4	VT234	HY114B
VT19	861	VT78	78	superceded by		VT175	1618	VT235	HY615
VT20	*	VT80	80	VT124	1A5GT	VT176	6AB7/1853	VT236	536
VT21	*	VT83	83	VT125	1C5GT	VT177	1LH4	VT237	957
VT22	204A	VT84	84/6Z4	VT126	6X5	VT178	1LC6	VT238	936
VT23	*	VT86	6K7	VT126A	6X5G	VT179	1LN5	VT239	1LE3
VT24	884	VT86A	6K7G	VT126B	6X5GT	VT180†	3LF4	VT240	710A
VT25	10	VT86B	6K7GT	VT127	Spec. Tube	VT181	724	VT241	7E5/1201
VT25A	10 Spec.	VT87	6L7	VT127A	Spec. Tube	VT182	3E7/1291	VT243	7C4/1203A
VT26	22	VT87A	6L7G	VT128	1830 (A5588)	VT183	1R4/1294	VT244	SU4G
VT27	30	VT88	6R7	VT129	304TL	VT184	VR90/30	VT245	2050
VT28	24, 24A	VT88A	6R7G	VT130	250TL	VT185	3D6/1299	VT246	918
VT29	27	VT88B	6R7GT	VT131	12SK7	VT186	Spec. Tube	VT247	8AG7
VT30	01A	VT89	89	VT132	12K8 Spec.	VT187	575A	VT248	1808P1
VT31	31	VT90	6H6	VT133	12SR7	VT188	7E6	VT249	1006
VT32	*	VT90A	6H6GT	VT134	12A8	VT189	7F7	VT250	EF50
VT33	33	VT91	6J7	VT135	12J5GT	VT190	7H7	VT251	441
VT34	207	VT91	6J7GT	VT135A	12J5	VT191	316A	VT252	923
VT35	35/51	VT92	6Q7	VT136	12K5	VT192	7A4	VT254	304TH
VT36	36	VT92A†	6Q7G	VT137	1625	VT193	7C7	VT255	705A
VT37	37	VT93	6B8	VT138	1626	VT194	7J7	VT256	ZP465
VT39	869	VT93A	6B8G	VT139	VR150/30	VT195	1005	VT257	K7
VT39A	869A	VT94	6J5	VT140†	1628	VT196	6WSG	VT259	829
VT40	40	VT94A	6J5G	VT141	531	VT197A	5Y3GT/G	VT260	VR75/30
VT41	851	VT94B	6J5 Spec.	VT142	WE39DY1	VT198A	6GGG	VT264	3Q4
VT42	872	VT94C	6J5G Spec.	VT143	805	VT199	6SS7	VT266	1618
VT42A	872A Spec.	VT94D	6J5GT	VT144	813	VT200	VR105/30	VT267	578
VT43	843	VT95	2A3	VT145	523	VT201	25L6	VT268	12SC7
VT44	32	VT96	6N7	VT146	1N5GT	VT201C	25L8GT	VT269	717A
VT45	45	VT96B	6N7 Spec.	VT147	1A7GT	VT202	9002	VT277	417
VT46	866	VT97	5W4	VT148	1D8GT	VT203	9003	VT279	GY2
VT46A	866A	VT98	6U5/6G5	VT149	3A8GT	VT204	HK24G	VT280†	C7063
VT47	47	VT99	6F8G	VT150	6SA7	VT205	6ST7	VT281†	HY145ZT
VT48	41	VT100	807	VT150A	6SA7GT	VT206A	5VG4	VT282	ZG459
VT49	39/44	VT100A	807 Mod.	VT151	6A8G	VT207	12AH7GT	VT283†	QF206
VT50	50	VT101	837	VT151B	6A8GT	VT208	TB8	VT284†	QF197
VT51	841	VT102	Cancelled	VT152	6K6GT	VT209	12SG7	VT285†	QF200C
VT52	45 Spec.	VT103	6SQ7	VT152A	6K6G	VT210	1S4	VT286	832A
VT53	(VT42A)	VT104	12SQ7	VT153	12C8 Spec.	VT211	6SG7	VT287	815
VT54	34	VT105	6SC7	VT154	814	VT212	958	VT288	12SH7
VT55	865	VT106	803	VT155	Spec. Tube	VT213A	6LG	VT289	12SL7GT
VT56	56	VT107	6V6	VT156	Spec. Tube	VT214	12H6	*	Obsolete.
VT57	57	VT107A	6V6GT	VT157	Spec. Tube	VT215	6ES	*	† Indicates VT number cancelled.
VT58	58	VT107B	6V6G	VT158	Spec. Tube	VT216	816		

THE JUBILEE RELAY

The Jubilee Relay Contest will take place during the month of September and should be a further means of making known Australia's Jubilee and the Jubilee VK-ZL DX Contest to be held during October.

Australian and New Zealand contestants will endeavour to send this message to as many foreign stations as possible:-

- **"Australia celebrates its Jubilee this year and invites you to join in the Jubilee VK-ZL DX Contest during October."**

Australian stations will add the signature W.I.A., and New Zealand stations N.Z.A.R.T.

RULES

1. The Contest will commence at 0001 hours G.M.T. on 1st September, 1951, and conclude at 2359 hours on 29th September, 1951.

2. Phone or c.w. may be used and all bands.

3. One point is gained for each contact and total points are obtained by multiplying total contacts by number of countries worked on each band.

4. Logs must be in the hands of the Contest Committee, Box 1734, G.P.O.,

Sydney, not later than 30th October, 1951. Logs should show: Date and time of contact, band, and station worked. A summary should be given showing final score.

5. A trophy will be awarded the highest scoring station in both Australia and New Zealand and Certificates to each District or State.

6. The decision of the W.I.A. Federal Contest Committee shall be final and binding.

7. From the above rules you will see that the Contest has been made very simple and should do much to publicise the main Contest, viz.: The Jubilee VK-ZL. Please send in your log irrespective of the number of contacts.

CRYSTAL CONVERTER

(Continued from Page 4)

THE CATHODE FOLLOWER

This was considered a necessary item and is excellent for changing from high impedance to low as required for the input to the Command receiver.

The resistor R11 was found to improve the output considerably.

THE K.F. STAGE

Last year's lesson showed that the aerial fed into a grounded grid r.f. stage was broad and inselective, in as much

as strong signals at the i.f. frequency filtered through. It has been said that a grounded grid stage will perform better when driven, so much thought was given to this. Something in keeping with the 6J6 mixer was sought after.

One that seemed would do was the cascode circuit reputed to give good signal to noise ratio. But this was single ended. Wanting to keep everything symmetrical, the push pull cascode circuit as shown was developed. The plate circuit is inductively coupled to the mixer. Neutralisation of the 6J6 is obtained by using slug tuned inductances. Although not critical, when neutralised exactly the signal to noise ratio is improved.

The Aerial Cell.-A two-turn link at the centre of the input coil is used. At this stage two more points are gained. High signal to noise ratio and sensitivity.

In conclusion, the special condensers can be made as per page 46 "QST," September, 1948, but take a little longer to make.

The coils are best checked by a grid dip meter to set them correctly in the shortest time, especially the inductance neutralising coils.

The converter has been used on 50 Mc. during the past few months and has performed very nicely. With what has been found in practice and in light of a few articles from overseas, the full benefit of the circuit design does not show up at 50 Mc., but should be very beneficial and a great advantage at 144 Mc. It will be changed to this band later and results compared with other receivers on that band.

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Transformers and Reactors

ELECTRONIC
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EQUIPMENT

With quality as the prime factor, A. & R. Products are developed to give lasting and highly satisfactory performance. We market our Transformers to satisfy the needs of the customer who buys on value and not on price.

At present the accent is again on high fidelity audio reproduction, and with the advent of a wide range disc and tape recording, together with pick-ups and speakers, better class equipment is required to fully utilise these wide range components.

Aware of these requirements, we have, for quite some time, been manufacturing wide frequency range Audio Transformers for almost every purpose. Our catalogue of Transformers and Reactors, which may be obtained on request, gives a large selection to choose from, whether the requirements be for Audio, Radio, Theatre, Domestic or Industrial use.

FOR VALUE AND RELIABILITY INSIST ON A. & R.

Available from—

MELBOURNE: Wm. Willis & Co.
J. H. McGrath & Co. Pty. Ltd.
Homecrafts Pty. Ltd.

ADELAIDE: Gerard & Goodman Ltd.
WEST. AUST.: A. J. Wyle Pty. Ltd.
TAS.: A. H. Gibson Electrical Pty. Ltd.

A. & R. Electronic Equipment Co. Pty. Ltd.

378 ST. KILDA ROAD, MELBOURNE, S.C.1

Phones: MX 1159, MX 1150

Fathers and Sons in Tragic Crash

VK7MC and Son, Athol, Killed

It is with deep regret that we learnt that VK7MC and his son, Athol, were killed in a car accident, together with Mr. S. V. Sydes and his son, on Sunday evening, 27 July.

The four people—ever killed when their car plunged off the St. Petersbridge at Avoca and crashed on to rocks 80 feet below. They were Stanley Vale Sydes (about 41 years), Peter Street, Launceston; his son, Edward (14); Ernest Edward, Cataract Hobart (45); VK7MC, Belmont, Tasmania, and his son Athol (17).

The accident occurred about 5 p.m. when they were returning to Launceston from Cales Bay, where they had been building a week-end shack. It is believed that the car was on the bridge and got out of control. It plunged over the edge of the bridge and landed upside down a few feet from the edge of the water. The car was wrecked and a small trailer being towed by the car was also destroyed.

The two men were killed instantly. The boys were rushed to the Launceston General Hospital but they died shortly after admission.

RADIOS OFFICIALS

Mr. Sydes was manager of radio station TLA and Mr. Cooper (VK7MC) was the chief engineer at TLA.

Mr. Sydes joined in 1920 and studied the technical branch of broadcasting. His tutor was the chief engineer (Mr. V. Brooker) and after three years he was awarded his technical certificate. When Mr. Brooker resigned as chief engineer in 1924, Mr. Sydes was given the appointment and held the position until 1946, when he was promoted to manager.

AMATEUR CALL SIGNS

ADDITIONS, ALTERATIONS AND DELETIONS
FOR MONTH OF MAY, 1961

ADDITIONS

VK—
New South Wales
SLR—J. Turner, McDougall St., Kyogle.
2AFH—F. D. H. Hurley, Unit 27D, Housing
Commissioner, Herne Bay.
TAPJ—A. G. Simmonds, 16 Burraunce Bay Rd.,
Cronulla, N.S.W.
2ARM—R. J. Miller, 8 Tillock St., Haberfield.

Victoria

3VU—R. C. Smith, Endale St., Blackburn.
AVT—L. Skinner, 82 St. Pascoe Vale
BANG—N. E. M. Bridge, 100 St. Kilda Rd.,
SANJ—L. E. Lewises, 12 Hall St., W. Brunswick.
3AVG—N. R. Mills, 40 Albany Cr., Surrey Hills

Queensland

4QO—R. J. Mitchell, Kelly Mount Rd., Woombye
4KJ—W. E. C. Davies, Coastal Radio Station
VII, Thursday Island.

South Australia

5MG—W. C. Caldwell (Cpl.), Milpo, Darwin, N.T.
STJ—T. J. Lally, P.O. Box 99, Clare, S.A.
6TP—A. E. Peppercorn, 6 Leslie Av., Bluff Athol

Western Australia

6BR—B. R. E. Field, Alexander St., St. Perth.

Tasmania

TYH—W. H. Hand, George Town.
7OK—M. A. O'Keefe, Hut Ct, Bronte Park.

Teritories

1BS—W. J. Storer, Macquarie Island.
5CP—Rev. C. J. Patrick, Capitalia, Manus.

8WG—W. C. Gee, Administration Senior Officers' Mess, Port Moresby.

ALTERATIONS

VK—
New South Wales

2AZ—“Vaucluse” Hoxton Park Rd., Liverpool.
2LP—Lot 51, New Barrangay Rd., Avalon Beach.
2TV—North St., Meeman.

2YI—100 Gladstone St., North Sydney.

2ZM—22 William Rd., Herne Bay.

2AQZ—New St., Auburn.

2AGY—Compton St., North Lambton.

2AKD—Union Avenue, West Ryde.

2ANR—3 Davis St., Carlton.

2ANR—“Kia Gra,” Yarr Rd., R.M.H. 200, Camberwell, A.C.T.

2ANT—Aerocontrol Rd., Forest Hill, via Wagga;

Box 118, Department of Civil Aviation,

Box 118, South Wagga.

2APM—Lot 67, Raleigh Ave., Caringbah.

2AVS—34 Monte Ave., Brighton-le-Sands.

2AVT—Miller Rd., Villawood, Sydney.

Victoria

3CL—High Street, Flemington.

3JM—100 Ascot Vale Rd., Ascot Vale.

3OE—38 Barcelona St.,

3OQ—Theogen Crt., SE Esplanade, Brighton, S.S.

He took an active interest in the affairs of the Australian Federation of Commercial Broadcasting Stations and was secretary of the Tasmanian Branch. He was a member of the Launceston Amateur Club and active in the organisation of Courses. Work held last month. He was also a former member of the Apex Club.

Mr. Sydes was a director of station 7QT Queenstown. His main hobby was amateur photography. He married Miss Judith McGladery, of Sydney, who was the first woman radio announcer employed by TLA.

TECHNICAL EXPERT

Mr. Cropper was interested in all phases of radio from the time he left school. He was employed by a Hobart firm in the mid-1920's to service radios and when the firm closed down, he moved to Launceston and went into business on his own.

His ability was recognised by the broadcasting station and after working at 7BT Hobart and 7QT Queenstown as a technician, he accepted the position of chief engineer at TLA.

Ern was an active 144 Mc. man in Launceston and was fairly active on 40 metre phone. He was a radio enthusiast and enjoyed living in a small seaside house at Coles Bay on the East Coast of Tasmania and in his spare time was building an 80/40 metre portable transmitter-receiver to take with him to this DX paradise miles away from man-made noise.

Only the Friday before the tragedy, VK7KW

was discussing with him the I.D. Contest in which he intended to take an active interest.

T-TYPE VALVE SOCKETS

Those ex-R.N. or R.A.F. 9-pin valve sockets for EF50s and the like—they can be troublesome when stripped from ex-Service gear. Many of these sockets had been sprayed or bushed by people with a yen for “tropic proofing or bust.” The result was that “goo” got all over the contact springs as well as the insulation material. Poor, or lack of contact and seized springs resulted from such treatment. The cure is to soak such sockets in lacquer thinner or Acetone, then dry out for a day or so, and all will be well, after scraping contact surfaces clean.—VK2NO.

Low Drift Crystals

FOR

AMATEUR BANDS

ACCURACY 0.02% OF
STATED FREQUENCY

3.5 Mc. and 7 Mc.

Unmounted £2 0 0

Mounted £2 10 0

12.5 and 14 Mc. Fundamental
Crystals, “Low Drift,”
Mounted only, £5.

Spot Frequency Crystals
Prices on Application

Regrids £1 0 0

THESE PRICES DO NOT
INCLUDE SALES TAX.

MAXWELL HOWDEN
15 CLAREMONT CRES.,
CANTERBURY, E.7,
VICTORIA

Results of the 1951 National Field Day Contest

Despite the publicity given to this Contest the number of logs received was a very poor average of the Amateurs who, from time to time, express their interest in field work. Admittedly it was a hot summer this year—which may account for the low participation figures—but it is astounding that so little interest is evidenced in what should seemingly be a most attractive out-door Ham event.

However, it is at least pleasing to note a little more interest than for the 1950 Contest, and if this can be taken as a guide, it would seem that the National Field Day Contest may yet be a "real big time" show looked forward to year after year by hundreds instead of such a minority.

SCORES

Open Section

Call	Phone Section				
	Conts.	Bands	Pts.	Bonus	Total
VK3ADB/2	44	3	176	150	326
VK6WI/P	39	5	137	150	287
VK7SR/4	47	2	214	100	214
VK2AMV/P/4	15	3	78	100	178
VK7WI/P/2	19	2	86	25	115
VK5JG/2	2	1	20	—	20

C.W. Section

Call	C.W. Section				
	Conts.	Bands	Pts.	Bonus	Total
VK4AP/P	37	2	173	175	348
VK3ADB/2	26	3	131	150	281
VK6HC/2	33	3	120	150	270
VK2AHA/5	30	2	116	125	241
VK7SR/3	19	2	91	75	166

Phone Section

Call	Conts.	Bands	Pts.	Bonus	Total
VK3LN/2	47	2	154	25	179
VK3ALQ/3	41	3	140	25	165
VK4KS/3	55	3	123	25	148
VK7SR/4	28	2	123	25	148
VK4RL	25	2	89	50	139
VK7RX/5	43	2	133	—	133
VK3ADB/2	23	3	69	50	119

Check logs were received from VK5RR and VK5BJ, and Eric Trebilcock HER5 195.

The description of equipment used by each competitor makes very interesting reading, but unfortunately it is impossible to print the details herewith. The equipment used by the winner in each section is as follows:

Open: VK3ADB/2 used the transmitters in this section, and also to be recommended on gaining second place in the C.W. section. VK3ADB/2 is the portable call of J. G. Du Preez. VK3ADF, who was ably assisted by J. R. Richardson, VK3ZP.

The portable station was located at the top of Eliza Hill, approximately five miles from Frankston, and used a Type 3 Mk. II on the 20, 40 and 80 metre bands, plate modulated with an external home-built modulator using a 6N7 in the output stage supplying 10 watts of audio power from a carbon microphone.

The power supply was connected to the final with the antenna connected was 20-32 wave. Antennae consisted of three long wire systems erected between trees, varying from 180 to 400 ft. in length, and 25 to 30 ft. in height.

Vibration power supplies powered all the equipment, including a modified Hallicrafters S325 Rx, powered from 6 volt accumulators.

Phone: VK3LN/2, Len Moncur, assisted by G. Dennis, VK3TF, carried off the first place in the Phone Section with a Type 3 Mk. II using a wide band transmitter operating on 10 to 20 wave half wave dipoles and a 30 metre half wave dipole. Their location was Keilor.

C.W.: VK4AP, A. Guildford, did a magnificent job of "breaking the tape" in the C.W. section with numerous points than contact points. He was assisted with the construction of his station by a New Australian, Ernie Ballantyne, who is also an R.S.G.B. member.

A Bendix XII-D was used as a v.t.o. followed by 6SH7, 6SH7, 6V6 and 50Y final running 15-18 watts into a 100 ohm load connected. The location was Lota—almost on the sea front about 15 miles from Brisbane.

A quite terrific supply of h.d. 6 volt and 12 volt batteries, 45 volt h.d. battery banks, 32 volt d.c. to 230 volt a.c. inverter, together with a 25 ampere generator, supplied by a local firm powered the rig into a 120 ft. single wire antenna end fed with tuned feeders.

As an indication of what can be done, VK4AP logged VSB, ZL2, SMS, WT, KHN, LUD amongst other DX. A very fine effort for 37 contacts on two bands.

VK3ALQ and VK7SR ran abreast for third place in the phone section and each will receive a certificate.

Let's hope that next year bigger and better logs will be sent in. And don't forget, chaps, send in your log, however small the number of contacts.

HINT ON MEASURING AERIAL

Next time you borrow a tape to measure the wire for an antenna, drive several pegs in the ground—survey peg fashion—known distances apart, say 33 feet and 66 feet. This will obviate the necessity for borrowing the tape on future occasions as you will now have convenient datum points from which to measure the lengths of wire commonly used in Amateur band antennae.

Setting a New Standard in Communication Receivers—

The "Commander" Double Superhet.

Free Data Sheets on Request

Interstate Representatives: West. Aust.—Messrs. Atkins (W.A.) Ltd., 894 Hay St., Perth. Queensland—Messrs. A. E. Harrold, 123-5 Charlotte St., Brisbane. In other States direct your inquiries to firms handling Bright Star Crystals.



Valves, new, boxed, RCA 834s, £1/8/- each.

Limited number of the following Taylor Tubes: TZ20s, £2/16/- each; TB35s, £6/16/- each.

Transmitters altered for Bush Fire and Fishing Boat Work.

CRYSTALS, as illustrated, 40 or 80 mx., AT or BT cut. Accuracy 0.02% of your specified frequency, £2/12/6 each.

20 metre Zero Drift, £5 each.

Large, unmounted, 40 or 80 metre, £2 each.

Special and Commercial Crystals—Prices on application. Crystals re-ground, £1 each.

BRIGHT STAR CRYSTALS may be obtained from the following Interstate firms: Messrs. A. E. Harrold, 123 Charlotte St., Brisbane; A. G. Healing Ltd., 151 Pirie St., Adelaide; Atkins (W.A.) Ltd., 894 Hay St., Perth; Lawrence & Hanson Electrical Pty. Ltd., 122 Collins St., Hobart; Collins Radio, 409 Lonsdale St., Melbourne; Prices Radio, 5-6 Angel Place, Sydney.

DC11 TYPE CRYSTAL HOLDERS WANTED. ANY QUANTITY.

Screw-type Neutralising Condensers (National type), suits all triode tubes, Polystyrene insulation, 19/6 ea. Prompt delivery on all Country and Interstate Orders.

Satisfaction Guaranteed.

BRIGHT STAR RADIO

1839 LOWER MALVERN ROAD, GLEN IRIS, VIC. Phone: UL 5510.

Commonwealth Jubilee VK-ZL DX Contest

CONTEST RULES—OCTOBER, 1951

On the 1st January, 1901, Federation was proclaimed in Australia and this meant the conversion of Colonies into States and these States became part of a new Nation. This year, Australia is celebrating the Jubilee of this memorable occasion by many and varied ceremonies in all parts of the Commonwealth and the VK-ZL DX Contest will not be the least important event by any means.

The Commonwealth Government has honoured the Wireless Institute of Australia by the recognition of one of the World's leading Radio Contests by making available a monetary grant and it is the intention of the Institute to show its appreciation of this allocation by making the Jubilee VK-ZL DX Contest the best Contest to date and your cooperation and assistance is sought.

You can make this Contest a very successful one by entering either the c.w. or phone sections, or for that matter both, and by sending in your log irrespective of the number of contacts you have had.

The Contest is divided into three Sections, viz.: c.w., phone, and receiving. The c.w. section will commence at 0001 G.M.T., Saturday, 13th October, and will conclude at 1200 G.M.T., Sunday, 14th October. The phone section will commence 0001 G.M.T., Saturday, 20th October, and conclude at 1200 G.M.T., Sunday, 21st October. The receiving section covers both c.w. and telephony.

You may enter the open section, viz.: all bands in either phone or c.w. or any one band in either section. A separate log must be forwarded for all sections entered. Additional logsheets may be obtained from your Divisional Secretary.

Serial numbers must be exchanged during the Contest as follows—The first three figures will be the RST in the c.w. section followed by serial number of the contact commencing with any number between 001 and 100 for the first contact, and increasing in value by one (1) for successive contacts. In the phone section, the first two figures will be the RS report and then in the c.w. section.

The method of scoring is quite simple. One point is scored for each contact and the final score will depend on multiplying the number of contacts by the number of countries or VK-ZL Districts worked on each band.

Logs must show in this order: Date, time (G.M.T.), band, call of station worked, serial number sent, received, and new country or VK-ZL District worked.

A cup will go to the highest scoring station both Australia and New Zealand, whilst a plaque or medallion will go to the highest scoring stations in each State of Australia and District in New Zealand. Certificates will be presented to other place getters. This procedure will be adapted for all countries outside Australia. Each W District and British Isle Prefix will be regarded as a separate country. The Contest Committee reserves the right to determine the type and number of prizes and certificates to be allocated. This will depend entirely upon the number of logs received from any particular country.

The New Zealand Association of Radio Transmitters are co-operating with the Wireless Institute of Australia in conducting this Contest.

Overseas logs should be returned by the Chairman, Contest Committee, Box 1734, G.P.O., Sydney, 1952. VK-ZL logs should reach the Contest Committee not later than 30th November, 1951. Every contestant will receive a copy of the results, together with a QSL acknowledging his

participation in this Jubilee DX Contest. Remember, please send your log irrespective of the number of contacts you have made.

Here are the Rules in detail—

Dates: (a) c.w. operation—second week-end in October, from 0001 G.M.T. Saturday, 13th October, to 1200 G.M.T., Sunday, 14th October. (b) Phone operation—the week-end in October, from 0001 G.M.T., Saturday, 20th October, to 1200 G.M.T., Sunday, 21st October.

Duration: (a) VK and ZL stations for contest purposes will limit their period of operation to any consecutive 24 hour period on each week-end within the time given above. Once an operator commences operation, the operator will not exceed 24 hours of operation reckoned from such commencing time.

(b) In other countries, stations may contact VK and ZL stations at any time within the periods shown above.

TRANSMITTING

1. There shall be three main sections to the Contest: (a) Transmitting c.w.; (b) Transmitting phone; (c) Receiving (phone and c.w.).

2. Contestants may compete in the open events (all bands) or on one or more individual bands by submitting a log for each individual band.

3. The Contest is open to all licensed transmitting Amateurs and receiving stations to and from the world. No entry fee will be made. Marine mobile stations (if outside Australian and New Zealand territorial waters) may count as contacts, but not as multipliers.

4. C.w. will be used for the first week-end of the Contest and phone for the second week-end. Stations entering for both c.w. and phone sections will submit separate logs for both phone and c.w.

5. All Amateur frequency bands may be used. Cross-band operation will not be permitted.

6. Only one contact per band is permitted with any one station (for contest purposes).

7. Only one licensed Amateur is permitted to operate any one station under the owner's name. Multi-operator stations, if operated by any particular station, each will be considered a competitor and must submit a separate log under his own call sign.

8. Serial numbers to be exchanged during the Contest will be as follows—

(a) For c.w. the first three figures will be the RST (telegraphy) report, followed by the serial of the contact commencing with any number between 001 and 100 for the first contact and increasing in value by one (1) for each successive contact. If any contestant reaches 001 he will then start 001 and continue 002, 003, 004, etc.

(b) For phone, the first two figures will be the RS (telegraphy) report, followed by the serial of the contact commencing with any number between 001 and 100 for the first contact and increasing in value by one (1) for each successive contact. Five figures in all. If any contestant reaches 001 he will then start 001 and continue 002, 003, 004, etc.

9. Scoring: One point will be scored for each contact on a specific band with any overseas country (VK ZL District for overseas stations). The final score will be obtained by multiplying the total contacts on each band by the total number of countries worked on each band.

The A.R.R.L. Official Countries List will be used except that in the case of the U.S.A. each call area shall be considered a country.

VK-ZL Districts are VK1, 2, 3, 4, 5, 6, 7, 8, and ZL1, 2, 3, 4.

10. Logs: (a) Logs must show in this order—Date, time (G.M.T.), band, call of station worked, serial number sent, serial number received, and new country or VK-ZL District worked.

(b) A separate log must be submitted for each band for which an individual entry is intended. For the open section an all-band log is required.

Each log must show a summary as follows:—The number of effective contacts, multiplier claimed and total points, together with a statement of call sign, name and address, whether phone or c.w., single band or all-band operation.

Each page of the log must be numbered and signed by the contestants.

The ruling of the Contest Committee of the W.I.A. will be final in the event of any dispute.

11. Awards: A cup will be awarded to the highest scoring station in the open section in Australia and New Zealand. A medallion, plaque or certificate will go to the highest scoring stations outside Australia and New Zealand. The Committee reserves the right to determine the types and numbers of prizes to be allocated. This will depend entirely upon the number of logs received from any particular country. Every entrant will receive a copy of the official log form with a QSL acknowledging his participation.

12. Entries from overseas stations should be endorsed "VK-ZL Contest" and should reach the Chairman, Contest Committee, Box 1734, G.P.O., Sydney, Australia, not later than 31st October, 1951. No VK-ZL logs should reach the Contest Committee not later than 30th November, 1951.

RECEIVING SECTION

1. The rules for the receiving section are the same as for the transmitting section, but it is open to all members of any shortwave listening society in the world. No transmitting station is permitted to enter for the receiving section.

2. The Contest times and the logging of stations once on each band per week-end are as for the transmitting section. Logs will be in the same as for the transmitting section.

3. To count for points, the call sign of the station being called, the strength and time of the called station, together with the serial numbers sent by the calling station must be entered in the log. One point may be claimed for each entry complying with the above details.

4. It is not sufficient to log a station calling "CQ Contest".

5. VK receiving stations may log overseas stations and ZL stations. ZL receiving stations may log overseas stations and VK stations. Overseas receiving stations may log only VK and ZL stations.

6. Awards to be determined by the Contest Committee.

COPY OF LOG SHEET

Section Phone Open... Band Call Phone Open... Band Call

Australia's Jubilee Celebrations Commonwealth Jubilee VK-ZL DX Cont.

Organised by the Wireless Institute of Australia in association with the New Zealand Association of Radio Transmitters on behalf of Commonwealth of Australia Jubilee Committee

Band	VK-ZL Dist. Countries	Contacts	Points
3.5 Mc.			
7 Mc.			
14 Mc.			
21 Mc.			
35 Mc.			
Total			

Name _____ Address _____

I hereby declare that my station was operated strictly in accordance with the rules and spirit of this Contest and I agree that the decision of the Contest Committee shall be final and binding in all matters pertaining to the Contest.

Date _____ Signed _____

Date Station Serial No. Country-Time Band Worked Sent Rec'd Dist. Points

DX NOTES BY VK4QL

As far as this QTH is concerned, one could almost say "What DX?" The bands have been in very poor shape here, and extremely erratic day to day. I have been trying to predict the future, and after many QSOs at the stations you were working would go out like a light, often finishing up with half copy of any "gen" for these notes. Have once again received valuable assistance from some of the DXers around the world, namely VK4, VK7, ZL1CI and ZL1MR. What about a VK3 and VK6 being in the swim too? Some new prefixes on the band this month have not quite a few of us wondering where they are. The band survey for the month is as follows, with the stations worked shown as a.

8.5 Me.: This band has produced very little of note, all signs being well down and of no use for a chart. As well as being weak, fading was bad, and the DX was often SLOW. Around 0600-0700 G.M.T. and is readable at this QTH. The Ws found the band similar to this QTH.

7.1 Me.: This band has produced a few startling surprises this month in various places. Up here the Ws have been hard to work at any period of the evening, for a good part of it, not even being audible, although some good KWB sign were heard. The band was then particularly strong in the mornings once again. A few Europeans have been heard weekly. One day at 2100 G.M.T., PYTHE was heard at first strength, and although off, some good KWB sign were heard. Also heard between 1800-2200 G.M.T.: WIAAE, SUIFX (QSL via H.S.G.B.), VQ9AB, YULAFQ, QGRDZ; evenings produced VR4AA and CM2PC.

IDG find VK4AUSA audible on 7130 Kc looking for VK7. Invariably the Ws in the evenings with the odd VE1 and KLT, VETNG was heard at 1330 G.M.T. This shows quite a difference

between N.E. and S.E. VK. SJF also heard a South American at round 2100 G.M.T. to the tune of LURAK. SAHP at St. John produces the most amazing information, with the news on the air at the time of the band, heard between 0001 and 0100 G.M.T. ZLs working at St. WS and South Americans. The following day at the same time, VE1 and WS were heard up to 08. On the 1st the VE1 and WS were heard weekly, but VE1 and VES were heard. This certainly rocks the natives. ZL1CI said that VQ4 had been heard over there at St round 2100 G.M.T. Knowing the trouble ZL used to have with South Africans even on 14 Mc., it is strange.

14 Mc.: This band, as mentioned earlier, has been most erratic and unpredictable, and is confirmed by many by station work. It is only consistent sig heard so far has been VESAW and WTAH. VESAW found the band most erratic, being unable to do much one day, and work next day was immediately better. On the 15th at 2100 G.M.T. the band was full of South Americans. An idea of the band for Europe can be gauged from the fact that I only worked one European in the mornings, and on 16th, 2250 G.M.T. heard ZS2AT via ZS2AT on 1400 G.M.T., whilst ZS2BW was worked at 0830 G.M.T. on 30W. On the 15th at 0745 G.M.T. the band collapsed completely. On the 4th, around 0600 G.M.T. VESAW had heard two beautiful sig appeared on the band sign, CRAAF and VP5SD. Both went through QSO after QSO for some time until they faded away. Ws had found the DX good at times, but weak, hearing such as USA, UPER, FASCR, HZ1AB, MD2JE, EKIDS, FF5AB, VP4TF, C3AC, FISAG VR4AB, SPISI.

2DG confirms the erratic band, but found the band better, especially between 0400-0600 G.M.T. and the Europeans. Between 1800-2000 G.M.T. he lists: ZL1CI, HZ1AB, M1B, KWCW, VP9PAK, VP5TB, CRAAF, VP2VYV, EASAM, EASBA, R3BAJA, F5ZBZ, FNDA, XUUF, F1PST, VP5TBH (Cayman Is.). ZC7 heard, when not trying to work the band, as well as ZL1CI, ZL1Z, ZL1CI, JEBAT, T8AFQ, MPABAF, HRKRS, 30W still getting strong to the tune of KV4AA, CT5AN, JBSAA, FK5SAL, CRAAF, XE1AC, VP5CDL, ZL1CI, HZ1AB, M1B, RPI, VP5TB, VP5SD. ZL1CI finds the European path goes out round 0600 G.M.T., then the JA and KLT appear until about 1200 G.M.T. His list, apart from the usual run of North Americans and Europeans, includes: ZL1CI, ZL1Z, ZL1CI, ZL1CI, T8AFQ, T8AFZ* (Box 330, St. Dennis, Reunion Is.), VR4AB. Ray another good effort by W4AM on the band the other day to the tune of an endless call "T84QZ—Blind—was it you?" His blinks certainly tries every post as a winner.

My own Rating for this band: FK5SAA, FK5SAL, M1B, ZL1CI, HZ1AB, M1B, CRAAF*, VP5TB, VP5SD, ZL1CI, CRAAF, VP5TB, VP5SD, ZL1CI, HZ1AB, M1B, RPI, VP5TB, VP5SD, EASBA, XZEM, VP5TB, HZ1AB, KUBAT, F1PST, XUUF. I tried to do the same as ZL1CI, but did not get the same results. QTH is giving me not being much help, which is No. 13, Yik Yam St., Gr. Fl., Hong Kong.

8.5 Me.: This band seems to be hopeless from all reports received. Any viable I made were fruitless.

In this way, the VK5 prefix seems to have a few DXers tricked. It is the prefix used by Wams with the French forces in Austria, similar to the MBB, used by British forces.

VK received QSLs from KJ6AI, FK5SAA, HZ1AB, HZ1CI, T8AFQ. What did you use for suffix with VK5? Alan, 3F, says his were OX3HNG, KW5AIA, CONDF, FM7WF, SP1MC, ZS2SMK, ZS2D, ZL1ZIANG, CPEEK. This QSL business is hard to follow. Now have received two cards from FM7WF, OX3HNG, ZS2SMK and CPEEK. I don't know if there are some waiting their first from some of them.

April "QST" said that VK4 is now being counted as a separate country, as is also Australia. So there looks like two more for the "books".

Eric B.H.R.S. 180, also helps me out with the news he has received cards from VR1C, HZ1AB, ZS2D, T8AFQ, W5MPC/7 showing he has confirmed 1400-1500 KHz. LA8AP on the same band at 2300 G.M.T. gave his QTH as North Atlantic, near the Canadian coast. Had a report to XUSSM return with the envelope endorsed "firm enclosed".

To date no change has been made in the Service concession postal rates, so the rates of postage to me in last month's issue will stand.

• Work continues on the G.I. Band, with the thought of "a fervent hope that the bands show a great improvement for the Remembrance Day and VK-2L Jubilee Contests, which are fast approaching." Cheers

IONOSPHERIC PREDICTIONS FOR THE AMATEUR BANDS

AUGUST, 1951

The accompanying charts have been prepared by the Ionospheric Prediction Service of the Commonwealth Observatory. The first set of the series was published in the November, 1949, issue of "Amateur Radio". The charts explain the nature of the forecasts and how to use them. Nine of the charts, prefixed by the letter "C" for Canberra, refer to forecasts for the South-Eastern Australian States. The remainder, prefixed by the letter "P" for Perth, are for Western Australia.

The Canberra charts refer to the following world zones.—

Zone	Region	Terminal
1	Western Europe	London
2	Mediterranean	Cairo
3	N.-West America	San Francisco
3a	N.-East America	New York
4	Central America	Bahamas
5	South Africa	Capetown
6	Far East	Manila

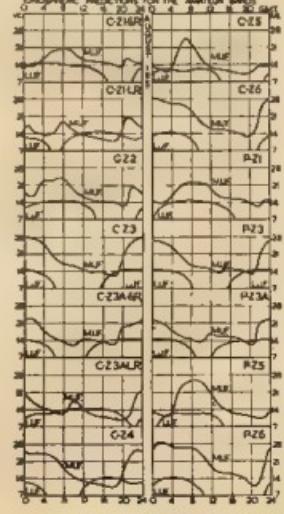
The forecasts have actually been prepared for point-to-point communications between Canberra and the various terminals mentioned in the above table. It is, however, to be expected that the charts will provide an approximate indication of ionospheric conditions for all Amateur contacts from South Eastern Australia to the world zone boundaries.

The Perth charts are similar to those based on Canberra. No forecasts are given from Perth so Zones 1 and 2 do not appear in the maps, but chart P-Z1 would be essentially similar to chart C-Z1, while chart P-24 might be unreliable due to auroral activity in high northern latitudes.

USE OF CHARTS

All that is necessary in using the charts is to select a time (G.M.T.) during which a specified Amateur band frequency is below the maximum usable frequency (M.U.F.) for the region of the ionosphere but above the lowest useful frequency (L.U.F.) for the desired contact. In two cases, Zones 1 and 3a, it is necessary to consult both the short-route (S.R.) chart and the following long-route (L.R.) chart.

The Prediction Service welcomes comments on the accuracy of its predictions. These should be forwarded through the W.I.A.



* First VK5 in the DX C.C. Club.

FIFTY MEGACYCLES AND ABOVE

Compiled by J. K. RIDGWAY, VK3CR.

V.H.F. men were shocked to hear of the tragic death of VK3 and his son Athel in a car accident. It will be remembered that when contact between VK3 and VK7 was first established as 144 Mc., VKC was one of the first stations on 144 Mc. and he has been a valuable team member ever since. VK3 Hamdow's loss will be hard to fill. Our sympathies are extended to his family and relatives, and to the family of Lancashire who have lost a friend.

GENERAL V.H.F. NEWS

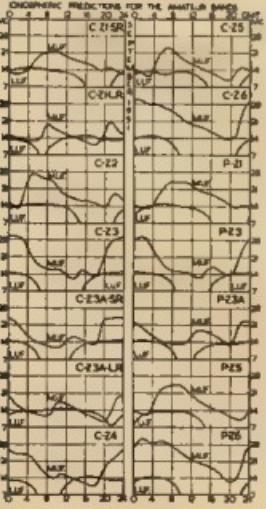
NEW SOUTH WALES

As the weeks pass, it begins to look as though the usual midwinter DX opening will not take place this year. So far the band hasn't even looked like being open and the beacons have been absent. Perhaps this accounts for the poor results in the recent contests. Two new stations noted this month, although three old ones reappeared after a long silence. These were 2AH, EDV and 2ABZ. EDV appears to have been rigging some bother with minor troubles since he says the rig going again—must be the rusty joints Snow.

V.H.F. activity this month has once again been concentrated on 144 Mc., 50 Mc. being very sparsely worked. Despite the lack of activity on an activity list for both bands discussed that sixty-one stations were active for the month of June. This list was compiled by SQZ and is as follows: VKA, 2AFZ, 2DF, 2CE, 2AV, 2PK, 2AR, 2AO, 2IO, 2LW, 2JY, 2LZ, 2LS, 2M2, 2MQ, 2NP, 2P2, 2PD, 2PF, 2QZ, 2QW, 2RU, 2VU, 2VU, 2V2, 2W1, 2NG, 2MK, 2XK, 2YM, 2AFZ, 2AJR, 2ASK, 2ABZ, 2AOZ, 2ABM, 2ANF, 2ABZ, 2AJZ, 2AJZ, 2AKN, 2AKX, 2AFZ, 2ANU, 2ABC, 2AET, 2AOI, 2AMG, 2KS, 2PB, 2ACP. Did we hear something about there being nobody on the v.h.f. bands?

50 Mc. W.A.S.

Call	Certificate Number	Additional Countries
VK3WJ	12	3
VK4RY	3	2
VK3VW	9	2
VK3LC	1	1
VK5SDW	3	1
VK4ER	4	1
VK3PG	5	1
VK3JR	6	1
VK3IT	7	1
VK2AEZ	10	—
VK3XA	11	—
VK3GM	12	1
VK3ABC	8	—



The N.S.W. V.H.F. Group would be pleased to hear from country v.h.f. enthusiasts regarding who operates on v.h.f. in their district and what type of equipment is in use, the aim being to compile a directory of N.S.W. v.h.f. stations. So, if you do use any of the bands from 50 Mc upwards, drop a note to the Secretary, V.H.F. Group, W.I.A., 20 Noble Street, Hurstville, N.S.W.

VICTORIA

The sympathies of Victorian v.h.f. men are extended to Peter ZAPP upon the recent death of his mother. Peter is a well known 2 and 6 metre man.

Ex-ZLY, Stan Skinner, has taken up residence in Ararat, Vict., Melbourne, and the call sign of ARAT is now in use, operating on 50 Mc. will soon be active on 144 and 50 Mc.

Another new call on 50 Mc. is ZJE who put in an appearance recently. We are glad to hear ZJE's signal again after an absence of many months. He is still on the mend, recovering from his recent serious illness, and now in the process of repairing his beam.

SOUTH AUSTRALIA

All v.h.f. men wish to congratulate Reg SQR on winning the v.h.f. contest. A good effort Reg. The main topic of recent weeks has been the rules suggested by VK3 for the v.h.f. contest. As far as I know, VK3 has not yet informed that there is to be a VK3 Inter-state v.h.f. contest next year and some very good trophies are to be offered, some for the country men, so here is a chance to break in on the V.H.F. and get some better than the lower frequencies for local work.

The offer to all country chaps is helping with getting them going on the v.h.f. still stands. You will want to be in this v.h.f. contest so get involved on your gear. The suggestion re the round table QSO for Sunday nights has not been fully supported as yet, although there is quite a bit of activity at that time.

The 50 Mc. is still heard after the W.I.A. session on 50 Mc. each Sunday. SBC and SHD are on 50 Mc. regularly each week. SPM and SMO started a QSO on 35 Mc. then 7 Mc., and moved up on 50 Mc. I would like to remark that VK1 was the first for local QSO's and I am telling you that for 15 years Peter SOA is dabbling with harmonic oscillators using a 6AS. SJF is back from VK3 and has cured the hum in the transmission, had good quality phone now. SRO has a few power problems, but a good signal. RGF also using QRP—0.1 watt—to a GJE. SMD has a good signal on 50 Mc. Well come to 50 Mc. ABY: only on c.w. but a good signal. SBC has a good signal on 50 Mc. and hum in modulator. SGL after being quiet for a few weeks, bobbed up with QRO and nice sig.

144 Mc. DOINGS OF THE MONTH NEW SOUTH WALES

New stations on this band are EYL and 2AFZ. 2VU is using 144 Mc. and hopes to shortly make a call. A couple more stations are appearing in the final. CJA is number of new stations are preparing to attack the two metre band for the contest. 2GA made the long trip from Woy Woy to Sydney and bent to collect a 282 Tx. Who should be in the band? The most recent start 2AYF has just got his 232 Rx going and hopes to have a 232 Tx going before the contest.

Mobile work is still occupying the attention of many stations. 2AFZ, Mr. Rendall, 2ABZ, 2HJ, 2YM and 2ANF were all out on the one afternoon and, with the exception of 2YM who was not heard by the others, all met in person near the water tank at Mobby's Hill. 2AFZ's spot 2BO is using a vertical dipole controlled rig with 232 in the final and clamp tube mod. 2XK has his mobile rig in action but is having modulator trouble.

2LZ has a 322 Tx going and putting out a very strong signal on a dipole. Lionel hopes to put up a beam shortly and add the Rx section. The 232 Tx part of his present 2AV rig 2EIO had some excitement one morning when listening around the band. He heard a very weak 200 Mc. signal on the low end of 144 Mc. which Roy 2WID A. A. had to go to the U.S.A. to seek verification but a time of writing no news has been received. Being an old hand at c.w. Roy is not likely to have overlooked the call signs so he is not yet abandoned. The power supply required is 100 watts. The 232 two metres was not verified as the station heard was being relayed by another station on ten metres at the same time.

2AET has made a comeback on two and still gives a fair slice of signal with his 232. Bill is hoping to hook on an E280 very shortly. 2MQ is taking the final of his Tx using flat strip lines. This rig, using 232 in the final, is the one described some time ago in the pages

of this magazine. ZADY, the Gladysville Club station, is being heard regularly on Sunday nights, on both 2 and 6 working club members and others. The club is holding a contest to run during the coming days of the 144 Mc. contest so this year the 144 Mc. dx contest should be bigger than ever.

2QZ has finally timed his new Tx. ZANT is taking over the 200 Mc. slot on 144 Mc. and the Coast boys are getting interested in 144 and 2KO reports intentions of a number of them to set up v.h.f. gear mainly for working amongst themselves. Such equipment should prove extremely useful for the emergency, particularly for short distances where 144 or 50 Mc. could provide the certain and reliable conditions which the 7 Mc. band does not.

VICTORIAN V.H.F. GROUP NOTES

Next Group meeting is on Wednesday night, 15th August at the W.I.A. rooms. Details of the evening's activities have not yet been decided, but will be published over SWL broadsheet. A meeting is also planned for 8th Sept. during which an interesting talk by Sun. Ldr. Hargraves backed by two films depicting anomalous propagation, and weather conditions likely to produce such anomalies, propagation or ducting. The speaker was also to be Peter ZAPP.

The second speaker was to be Peter Nichols who also brought along a colour film showing the life story of Albert Namatjira, the famous aboriginal artist. All pictures were well received.

Sign. Lt. Hargraves in his address stated that frequencies above about 80 Mc. are not affected by ionospheric conditions but may be affected by tropospheric conditions. Ionospheric conditions permit DX on 144 Mc. and Mc. 50. The ionospheric condition on lower frequencies, known as sporadic E, is quite unpredictable. The film on anomalous propagation showed how objects normally outside the range of radar stations, could be seen on 144 Mc. or 50 Mc. and render it useless for its normal purpose. The second film showed how the refractive index of the atmosphere under certain weather conditions causes sufficient blurring of v.h.f. radio waves to affect the propagation of the wave, the nature and how the effect known as ducting can occur. It was interesting to note that the refracting layer could be as low as ten feet above the ground and that refracting layers could move horizontally at low altitude. The heights necessary to produce ducting at 144 Mc. Hence it appears that higher frequencies may enable more frequent contacts with distant stations.

After the films, the meeting was opened for general discussion, which fortunately, was soon closed off for the hour was past. Hence the most outstanding item was the revelation that a donation of a pair of 240s as a prize for a 575 Mc. contest had been made by 2XA about two years ago, acknowledged in the notes in May 1949. This last year had never been awarded and had remained in the instrument library until their presence was accidentally discovered recently. 2XA and 2JO were appointed to continue the draw up rules for the contest for 575 Mc. These will be presented in the notes next month, and it is likely that the contest will open on 1st September, all colabwrs etc. should be removed from 675 Mc.

In the notes from VK3 last month it was noticed that the v.h.f. e.c. idea had met with their approval. To date, no claims for membership have been received here, but judging from remarks it would seem that QSL cards, necessary for verification of contacts, are harder to get than actual contacts.

576 MEGACYCLES NEW SOUTH WALES

As reported last month, tests were carried out with various polarisers and vertical polarisation by 2WJ, 2AJZ and 2DP. 2WJ reports that the horizontal was superior and since the tests most of those operating on the band have changed to horizontal. However, it should be pointed out that the tests really did not prove anything as the horizontal beams were 34 element types, whereas the vertical beams were of the simple four over four type. 2DF had identical vertical and horizontal beams but found that most contacts were not the same and definitely favoured the horizontal types. The test was therefore unfairly biased in favour of horizontal. However, as the 34 element beams give six sticks when used vertically, horizontal polarisation should suit them better.

2QW has a new station on the band and has already contacted 2WJ and 2AJZ using a small transverter and a light house tube. He is going to get a pair of large lighthouse tubes going for the Tx to run about 10 watts. 2AET, who won the RLLs in the recent field day contest, has them to go and will be using 2QW. Bill 2EIO has got the band 2U into his net. 2X and 2R going and should do fairly well when he gets a beam up in the air.

Acknowledgments to VK3, 2ANF, 2JO and 2KL for the above material.

FEDERAL, QSL, and



DIVISIONAL NOTES

Federal President: G. GLOVER (VK1AG); Federal Secretary: G. M. HULL (VK3ES); Box 2811W, G.P.O., Melbourne.

NEW SOUTH WALES

President Wal Nye, VK2KG

Secretary, David H. Duley (VK3EO), Box 1734
G.P.O., Sydney

Meeting Night: Fourth Friday of each month at Science House, Corner Gloucester and Essex Sts, Sydney

Divisional Sub-Editor, Don R. Knock, VK3NO, 43 Yanko Avenue, Waverley, Sydney.

Zonal Correspondents: North Coast and Tasmania—S. H. Redhead, VK3KZL, Balmain; Newcastle, Ron McD. Stuart, VK3ASJ, 26 Dunbar St, Stockton, Cessnock and Lakes. Harry Hawkins, VK3YL, 27 Comfort Ave., Cessnock; Western, W. H. Sutliff, VK3WV, Cambewarra, South Coast; Central, Robert R. Farrelle, VK3DQ, 100 Pitt St., East; Eastern Shores, Don Knock, VK3NO, 43 Yanko Ave., Waverley, Northern Shores—Harry Powell, VK3HBP, Russell Av., Wahroonga, St. George; Chas. Coyle, VK3YK.

VICTORIA

President: G. B. C. Semmens, VK3GS.

Secretary: C. Dyer (VK3DLY), 19 Collingdon Avenue, Eltham, VIC 3095

Administrative Secretary: Mrs. S. May, Law Court Chambers, 191 Queen St., Melbourne.

Meeting Night: First Wednesday of each month at the Radio School, Melba Technical College

Zonal Correspondents: Western: C. G. Waring, VK3JYV, 12 Skene St., Stawell, South Western: K. O'Toole, VK3AKB, Millstreet; Western: North Eastern: T. K. Tennant, c/o Victory Travellers, 100 Main Street, North Hobart; VK3MGE, 101 Lennox Ave., Milford; Eastern: H. C. Kelias, VK3KAM, Tinambra; North Western: C. Case, VK3ACE, Cummign Ave., Birchip.

FEDERAL

FEDERAL CONSTITUTION ALTERATIONS

Federal Executive on behalf of the Federal Council of the W.L.A. hereby advises notice that it is intended to alter the Federal Constitution of the W.L.A. (as amended 1947).

Section 21 as follows: By deleting the words "within 60 days immediately preceding" and inserting in lieu thereof "90 days prior to."

Section 28 as follows: (a) Deleting the words "in the manner in which the Board may direct, inserting the word "say" in lieu thereof; and (b) deleting the words "the Headquarters" in line 7, and inserting the word "appropriate" in lieu thereof.

SLOW MORSE TRANSMISSIONS

The following transmissions from the official W.L.A. stations are given on 3,504 Mc. on the days and times shown below:—

Sunday—VK3JWI, 2030 to 2100 hours E.A.S.T.
Monday—VK3KJN, 2000 to 2030 hours E.A.S.T.
Tuesday—VK3KJN, 2000 to 2030 hours E.A.S.T.
Wednesday—VK3JWI, not operating at present
Thursday—VK3KJN, 1930 to 2000 hours E.A.S.T.
Friday—VK3JWI, 2030 to 2100 hours E.A.S.T.

INTERFERENCE TO OFFICIAL BROADCASTS

With monotonous regularity, interference on the official WI broadcast channel frequency of 3,504 Mc. still persists despite repeated requests that this channel be kept clear on Sunday mornings. Chaps, even if YOU are not interested in W.L.A. activities, please give those who ARE interested a chance to hear.

On one or two occasions recently, WI stations have managed to receive the official broadcast after cessation of the Divisional broadcast, thus interfering with the broadcast from the next official station on the schedule. When your Division has concluded its broadcast PLEASE make sure to change over to the official channel in the Eastern States, particularly, the broadcast is very often stronger in adjacent States than it is in the State in which the programme originates.

REMEMBRANCE DAY CONTEST

Just a reminder that the Remembrance Day Contest is scheduled for the week end, 11th and 12th August, and contrary to rule one (1) as published in the July issue of "A.R.", the Contest is twenty-four hours' duration for any participant.

WI BROADCASTS

All Amateurs are urged to keep these frequencies clear during, and for a period of 15 minutes after, the official Broadcasts.

VK3WI: Sundays, 1100 hours EST, 7185 Mc. and 3000 hours EST 50 and 144 Mc. No frequency checks available from VK3KJN. Intra-State working frequency, 7175 Mc.

VK3JWI: Sundays, 1130 hours EST, simultaneously on 3780 Mc., 7185 Mc. and 144 Mc. Frequency checks available from VK3KJN. Individual frequency checks of Amateur Stations given when VK3JWI is on the air.

VK3KJN: Sundays, 0800 hours EST, on 7186 Mc. Frequency checks are given by VK3KJN by arrangements only on the 7 and 14 Mc. bands.

VK3WI: Sundays, 0900 hours WAST, on 7186 Mc. No frequency checks available.

VK3JWI: Sundays, 1000 hours EST, on 7186 Mc. and 146.3 Mc. No frequency checks are available.

SILENT KEY

It is with deep regret that we record the passing of.—

VK4HF—Hal Fitzallen, June, 1951.

VK7MC—Ern Cooper, July, 1951.

Please take an interest in this most worthy Contest and send in your log even if you only have been able to make a few contacts required—let all help the Central Committee to check the scores and add materially to the State score in competing for the trophy.

Federal Executive have printed special Contest Log Sheets which have already been forwarded to each Division for circulation to members. Divisions have been asked to see that a supply is forwarded to each Zone for further circulation. It is particularly requested that every participant forward his Log on this approved Log Sheet; if your friends can't get into the various centres for them you can see that they obtain some.

There is space for 40 contacts on each sheet, so don't take more than you and/or your friends require.

The Log Sheets have been supplied on a per capita basis; if any Division has too many please make arrangements to forward the surplus to a Division or zone requiring more than anticipated. Thank you gentlemen—and may the best State win!

W.I.A. ACTIVITIES CALENDAR

August 11-12: Remembrance Day Contest.
October 13-14: VK-ZL Jubilee Contest (C.W. Section).
October 20-21: VK-ZL Jubilee Contest (Phone Section).

DIVISIONAL NOTES

President: G. M. Hull (VK3ES); Box 2811W, G.P.O., Melbourne.

QUEENSLAND

President: J. H. Farrell, VK3WF
Secretary: J. F. Pickles, VK3PF, Box 683J, G.P.O., Brisbane.

Meeting Night: Third Friday in each month at the L.E.M. Rooms, Wickham St., Valley.

Divisional Sub-Editor: Clive J. Cooks, VK4CC, Kurun Street, Cherristown, Brisbane.

SOUTH AUSTRALIA

President: E. A. Harbiller, VK3MD, Box 1304K, G.P.O., Adelaide.

Meeting Night: Second Tuesday of each month at 17 Waymouth St., Adelaide.

Divisional Sub-Editor: W. W. Parsons, VK3PS, 19 Victoria Avenue, Rose Park.

WESTERN AUSTRALIA

President: J. Campbell-Watson, VK3JWJ.

Secretary: H. B. Lang, Box N1023, G.P.O., Perth, W.A.

Meeting Place: Padbury House, Cr. St. George's Ter. and King St., Perth.

Meeting Night: Third Tuesday of each month, 75 Weston St., Carlisle, Western Australia.

TASMANIA

President: R. O'May, VK7OM.

Secretary: L. W. Edwards, VK3JLE, Box 271B, G.P.O., Hobart.

Meeting Night: First Wednesday of each month at the Photographic Society's Rooms, 168 Liverpool St., St. Hobart.

Divisional Sub-Editor: S. Excell, VK7SJ, 77 Mole St., Hobart, Tasmania.

North Zone Correspondent: C. A. Cullinan, VK7XW, 12 Montrose Place, Launceston.

GOOD NEWS

Members will be pleased to know that Gordon Waynton, VK3JKU, Federal Vice-President, has recovered from severe injuries received some months ago when he was involved in a car accident.

Gordon has been heard back on the air in VK3J and is surely and steadily winning his way back to health and strength. We members of Federal Executive who have been more closely associated with Gordon know how seriously injured he was and the tremendous will to live that no doubt pulled him through.

Every Amateur will wish Gordon the best 73 and a rapid return to his normal daily duties.

TRAVELLING AROUND

J. M. Dobbyn, of the P.M.G. Department, and Sen. Lord J. H. Hannan, VK3JWJ, have both left Australia for duties abroad in their respective spheres of duty. Federal Executive have given these gentlemen a letter of introduction to Amateur Societies abroad should the opportunity arise. It is for this reason that overseas Societies conventions or meetings, and they have expressed their pleasure and willingness to make personal contact with our overseas friends and bring back to us their impressions of Australian life in other countries. We wish them a pleasant journey and a safe return to their native land.

FREQUENCY ALLOCATIONS

The following is a list of the bands available for use in the Amateur Service in Australia, followed by the types of emission allowed on these bands.

3.5 to	3.5 Mc.—A1, 3, 2a, SF3.
7.0	7.0 Mc.—A1, 3, 2a, SF3.
14.0	14.4 Mc.—A1, 3, 2a, SF3.
28.6	27.2 Mc.—A1, 3, 2, F.M.
50.0	49.0 Mc.—A1, 3, 2a, SF3.
70.0	64.0 Mc.—A1, 3, 2, F.M.
144	145 Mc.—A1, 3, 2, 3, F.M., Pulse.
220	236 Mc.—A1, 3, 2, 3, F.M., Pulse.
350	353 Mc.—A1, 3, 2, 3, F.M., Pulse.
500	503 Mc.—A1, 3, 2, 3, F.M., Pulse.
1515	1515 Mc.—A1, 3, 2, 3, F.M., Pulse.
2300	2450 Mc.—A1, 3, 2, 3, F.M., Pulse.
3500	3550 Mc.—A1, 3, 2, 3, F.M., Pulse.
5000	5050 Mc.—A1, 3, 2, 3, F.M., Pulse.
30000	31000 Mc.—A1, 3, 2, 3, F.M., Pulse.

NEW SOUTH WALES

EASTERN AND SOUTHERN SUBURBS

For ZASEE says that he hasn't been on the air very much of late because of home jobs and getting ready for 144 Mc with Andy 2AXX getting him on in the latter direction. A welcome is extended to him and a new member in the Eastern Suburbs area. We started up on 20 and is now on 40 with a nice signal. All ZCE pop-ups up new and again on 40 to discuss 144 Mc with the Eastern Suburbs boys. Dave 2AVV mounted his 144 Mc with 100 ft. on the other bands as soon as he gets the shack renovated. After talking about it for some time in pre-war days, Col 2ARD has broken out on v.h.f., and is on 20 and 40. He takes a lot of photos there with 2AR and 2AU. ZASG Ray now operating on 144 Mc. Andy 2AXX finds his location for 144 Mc. poor. Your Sub-Editor feels out in the cold about v.h.f. these days, after having heard on 144 Mc. how good the signals were, and is hoping in the first time to break out any tick of the clock. Bruce 2AZH active on 40 with nice phone signal, is yearning to get to his new southern suburb location.

George 2AHJ also on 40 phones with a n.b.f.m. signal, using a reactance modulator set up. Ivan AT 2ANL is heard at intervals on 40 phone, usually at week ends. A male voice reported during his section on 2ANL's "Hams" Radio section. Morris Oakes had bad luck in the morse exam, recently for his ticket. Keep plodding OM, you'll make it in the end as others of mature age have done. Len 2ABH has a new beam which is likely to give c.w. away for a while, and to break out on phone. Ted 2AIIH not heard for some time, recently had an arrival - 4th harmonic. Jack 2EZ is heard at intervals on 40 phone and Jack 2EY is still being competitive with his 40' vertical beam for use at his new location somewhere up the coast. Most consistent VK3 from a southerly direction heard on 80 in the Sydney area. The 20' beam of 2EY is heard on 40 phone signal from his 80' multi-folded dipole is about the same strength by day and by night, ample indication that the boys really should make daylight to 40 for contacts covering up to 144 Mc. No Hamograms on 40 yet, maybe these days is the old "Sugar Apple". Wal 2BZ is heard seeking and working the v.h.f. DX on 30; don't recall hearing him on any other band. Acknowledgment is made to ZASEE and ZAYE for assistance with news items.

NORTH COAST AND TABLELANDS ZONE

Col 2AGM has staged a come back and working 80, 2HL working 20, 6 and 80. Doc's new 80 antenna has made a big difference. 2ASO has been heard on 40 and 80, 2AP has been heard humbling, but works 2LJ, mostly on 8. 2LR and 2AJB active on 40 and 80. 2PA active on all bands during the week-ends only; Peter reports good results with his long wire antenna, a few feet high at one end. 2PQ active on 40, using GSF0. 2AWS Len will soon be on the air again and has two 65 foot electric light poles to erect for mast. 2AEY busy hunting gods dam 2AAV and 2ADK, and 144 Mc. 2VG completed new 4 element beam and 80 Mc gear to work 2ACU (Coomamble) who has also built 6 and 144 gear—the country gang will soon be on the v.h.f.s. 2DK not very active due

No word from any of the Inverell gang, what looks boys? Sid 2ARL not very active of late. 2OE not very active, no news from the Grafton gang. 2ARY putting out good phone, a new antenna too. 2CJ was plenty active on 40. It is pleasing to note that 2WZ health is again 100 per cent. 2ADN working plenty of DX on 20. 2ARL Jim too busy for Ham Radio these days. 2DX working 20 only. 2APB Ken Brandenburg is still on 40 and 80, and 2AZH, late of Sydney, now on from Dorrigo 3,000 feet above sea level; Errol hopes to put up a v.h.f. beam and to get going on 144 Mc.

COALFIELDS AND LAKES

Again not much to report and bands generally quiet. 2WZ will be seen to be active on the gang from their shack. Ken 2ANU now using crystal on 144, very nice signal too. Has had the XYL in hospital, all hope is she is well again. Geoff 2NU not heard to much on 6 and 80, but working around with his dipole. Nothing to report from 2ZL, 2YO or 2PZ. Bob 2TY sticking to 38 Mc., had a lucky escape from a serious eye injury in a recent gale, everything now OK. 2WZ has been working hard to encourage an easi to work on 20, a bit crummy but OK on the other bands. Bob has cb phone these days. Max 2CZ another reliable 38 Mc. phone and despite adverse conditions still getting through. 2WZ has a new 40' vertical beam and 2BZ cross band 50-144 looks as if he will have to talk fast to keep 2BZ interested, the latter not so pleased with his new location. 2ADT also talks grid dip osc. and has made a multimeter, also doing some rock grinding.

From near Wyong Cee 2ARV is active on 40 phone, getting out well. Major 2TR is the only active station in Gosford, on 6 mainly but can be heard working cross band 50-144 with the Woy Woy boys. Both Cee 2KR and John 2GA are going on 144 and 80, but not receiving much activity on 144, but 2HR is satisfactory 2YV playing with 144 anal, alasing a few unneeners. Can't yet say yes or no to my hearing of WEFIN on 144, my logging checks OK. He was on 144, but was working cross-band to 2R. Mr. and Mrs. Wal 2WZ with a brand new girl got me my 144 Mc. And I am hoping 2HIC's reception of a WI on 144 Mc. received a better fate.

HUNTER BRANCH

Harold 2ARL, who has done yeoman service as Zone Correspondent for the Branch since its inception, has now relinquished the position. All are most grateful for the wonderful work he has done. 2ASJ cannot hope to emulate his efforts, but will do what very best he can in giving the lot of help and advice which would like to appeal to all Hams in this Branch to let us know what they are building or wrecking so that we can pass the news on to others.

In accordance with the decision made at the last meeting of the August meeting of the Hunter Branch, will be held in Maitland. This will provide an opportunity for members further up the Hunter to attend and take an active part in proceedings. It is hoped that Hams in the area will be able to turn out in full force and we are also hoping many of the younger generation will become associates. The meeting will be held at the Technical College, Maitland, on Friday, 10th August, where will be present Herbie 2RJ, the new name for 2ARL, and Fred 2TR. This will be something new in lecturing technique, the subject being "Stabilized Oscillators." Newcastle members who have no transport, and are unable to travel to Maitland, please contact Secretary 2ARL Tel. B 1574, and he will endeavour to arrange this for you. We understand 2DZ is doing good work spreading the news around the Coalfields.

Stan President Wal Nye made time to call on 2ARL, 2TR, 2BZ and 2CQ during a flying business trip up this way.

2XY had holidays in June, hence the bad weather. A gale wrecked 2MT's mast, but Edger soon got going again, and hopes to be on 20 soon. 2ADL celebrating arrival of baby daughter tonight. 2ARL and 2WZ of late have shifted QTH. 2PQ has new beam. Tom active

HAMS! HAMS! IT'S HERE!

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with dual purpose 40/80 antenna. Vice President SAWT has moved to Williamstown, and is absent on 10. 2CW is working ZLs on 40 phone despite shift work, get QSL ideas out of your head. Doing a fine job for Bill, who is still unable to conduct his Association; is doing good business on RA105. 2PM's started shack building, soon be on the air.

Thanks to EDG for some Matildan news. Keith is without milk, knowledgeable DX on 20 & 40, says he is EAS/9. 2WY received help with new Rx from 2DG. Vic KACP has new shack in quiet lately, no doubt Joe will be at Matilda next week. 2WZ has been active, and has had attention from "Old Man of 80" 2XG; some nice DX was result says John. 2TY was injured during recent gale, is working KHS again. Geoff 2AR has gone QSO on 40, and QSOed with 2WZ. 2AR has made his first headlines recently, and we are proud of them. 2ANU of Muscle Creek has contacted 2LY of Katemba on 144 Mc. over very bad terrain. 2AGD has new 40 & 80 meter beam, and watched it anxiously during the gale. 2AU has been portable from Karaka and Speer's Point; just about completed putting up. 2BZ is QRT at the moment, and is working to have a new long wire on 40 soon. After his success on 30 phone, 2AAI is reverting his RA16 Old timer 2AFA, has purchased a TAHD, looking for modulation gear. May be his last numbers, 2AGG and 2ASZ will get the urge again too.

2LY active area sharply, not so QRL with "harmonics" now. 2KG has new Rx perking up to 70 Mc., and Ken is reading mail on 40. 2NK 2VQ and 2VU have been given front page publicity in the weekly paper, and are now graphically working on ship's radar installation—the first fitted here. Nine of these three on Ham bands though. 2BZ DX man 2T2 also absent of late. 2WV is working 20 & 40, as well as 10. 2AFD has 20 & 40 meters, and is working 20 & 40 c.w. with xtal control and 807 final. 2BZ has pleased with new freq meter and monitor, spending hundreds of hours on ornate cabinet. 2BZ has ZLs on 40 phone and ear with only 5 watts. Bill also has rig on 20. Veteran 2AMF heard on all bands (passes permitting); William is working 20 & 40 steam. 2ABM has excellent results with 20 & 40 steam modulator. A big thanks to very hard work and patience of 2XV. All members extend sincere sympathy to Norm 2ANU in the recent loss of his mother

SOUTH COAST AND SOUTHERN

Although our Sunday morning hook-up is slowly gaining in strength, it does not seem to be producing the notes I had hoped to gather. However we have learned that Ross 2PN has been in hospital, understand that Ross is home again and on the way to good health. Geoff 2DQ has had new rig on 40 & 80, and 2DQ has done 20W now boards of 63 countries on 20, his list for one month included FN, FS, FA, LA, LB5ZC, MB85B, YS10, HS1AS, 2AKY, and GC. Just to mention a few, he has been on 40 in Melbourne on Sundays and usually contacts VK3 stations on Sunday mornings; on XYL at the moment, but a v.f.o. is under way. Two zone stations not heard for a long time were contact by 2AR, and 2WZ. 2M07 was easily copied due to skip, but Jack 2OY had his usual nice signal but had no news of any interest. Don 2ASD of the south coast is an 40 and is operating from Wollongong Club Tx.

According to 2EU there is a new Ham at Cororua but no news as to call etc. Visitors this month were 2LQ who passed through on their way back to Sydney. Our 2ALC proudly displays new D104 make of English origin; he is thinking of putting up a half wave for 80. 2AMD, 2DY, 2AKY, 2BQ and all fairly reliable contacts such Sunday morning as the result of the contest. 2BZ also called on his way back from West Wyalong, said his Clapp had some drift, found some zero type condensers, so perhaps all is stable now. While 2BZ was in the area he was thinking of getting I have been put to get this batch together. The Tx will be dusted for the R.D. Contest, the only one I am interested in.

WESTERN ZONE

Red 2ACU is practically gone on 80-Tx complete 800 in filters and 50 watt converter is nearly finished. New Ham at Dubbo is 2APE who used an AT5/ARS that only comment "no monkey business." 2BZ also of Dubbo has a new hobby gliding—far is on in the building stages, not yet built yet. Very likely to move into the new home before Xmas. Freddie 2VZ far too 2LQ for Ham Radio. Tom 2AMR still the most active Amateur from Dubbo heard other 2ACU Bill is doing good work with the long wave on 14 Mc. 2BS, Lawson quite active and heard on 7 Mc. John 2AMV, of Forbes, has been bitten by the carpentry bug and doing all sorts of jobs around the house.

Perhaps John has reformed or preparatory to the bug again biting 2BT of Eurotowners, has a SCR322 nearly going on 6, works 7 Mc. occasionally.

2BL of Parkes is constant on 40 and 20, which is good, and 2AR has come to him for a checkup. On the latter score, 2NZ says he has been threatening for two years. Trevor has been busy concreting around the house, painting it etc. Now he has ninth sticker for the DX C.C. and 100 confirmed. 2ZWH, although he has supplied much of the information above, has been excused from contributing these notes as he was in Sydney for the DX C.C. and 100 confirmed. 2ZWH is very wet as was the hospitality afforded by Colin 2ABD. Whether 2ARD's visit to 2WV's or vice versa was the most pleasant remains to be proved—relations however were definitely improved—has been in touch with 2ZWH since his return and admires nice QSLs from HEB1AA and MF2AA. 2EX, of Springwood, is sworn off until next frequency meter is produced. 2AR has been working on 20 & 40, and during the review of 144 chalked up an over 100 miles contact with 2ANU in Muswellbrook. 2LZ works a few skeds week ends, but otherwise not active, will chase the DX again about Xmas.

VICTORIA

CENTRAL WESTERN ZONE

The main item of interest is the Zone Convention to be held at Ararat on Sunday, 18th September, commencing about 12 noon. The afternoon will be given over to a series of prizes worthily offered for the winner, three miniature tubes (2AG3s and 2AQ5s) donated by SPD, in addition 2XU has donated a special prize for the first zone station to find the TX spot and check and detect certain anomalies off with the spuds. 2XU has also donated a prize for the best piece of Ham-built equipment on display, no returning deposit required. The third prize is to be determined by ballot of those present. 2ARL has donated a prize to be won by the winner of a brain warming competition. All in all we think a very enjoyable day will be spent by those who make the trip, and will hope the date on the calendar will keep it free. A detailed programme will be included in next month's notes, and over VKSWI.

Our worthy President 2XU is back on the air again, and has been heard pounding away

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me a few secrets concerning "Pop's" XYL if she was not more respectful toward him. Quite unashamed she said that if he was not more careful he would be the one to tell a few tales about him. Muriel, do you realise that you are the answer to my prayers, just tell me a teeny weeny tale about him, in fact an idly told story will do, I will never forgive him so I am going to let him go to the cobbler and that is, because I will never forgive him for christening me "Panxy". Can I count on you Muriel? Atta girl.

The XYL of John SKW has not been enjoying the best of health at the time of writing. SKW has also been the one quite OK. SKW has not been very active on the air lately and rumour has it that Peter has been using his spare time to construct a super sooper receiver. SMH has had some good contacts with E and John Sherrard (SKA) who incidentally hopes to be home in September, and it would appear that as Stuart has moved his gear in by the fire there will be no stopping him now.

STW is hotting up the r.f. end of his ART with an RLC filter feed, that is his invention. This has been quite a few contacts on 40, and has almost been converted to 2, so 'ts said. SKC has been playing around with a "hi-fi" audio amplifier but Claude has found time to build a new receiver and has since joined the club. SMH almost completed his new home shack and is after the converter that he lent BCJ, it would appear that he will be more active than he has been lately. SKU has been heard a lot on 40, but he is still not quite OK. He might have a clear spot on that band since the ZLs bobbed up on phone. SKC has purchased the ZLs being longed to SKB and now has a good set-up on 10 metres. CC burnt out a power transformer in his shack and eventually got the usual, and it would appear that moisture was the cause of the trouble. Thanks for the notes Col, and hope the family are well.

I have been working on the front garden of the Parsons' home all this month and as the local council workers have been here this has been having quite a tussle to see just who could lean on the shovel the longest without actually falling over. I struggled manfully but their years of experience told in the end, and had to bow to a superior shoveling force. Ross Kelly went pants one day and shouted out at the top of his voice, "Stop leaning on that shovel, you look like a union man," much to the enjoyment of the council workers. I am sure that the same would happen at the council signs appearing overnight on my front fence, such as "Slow down, men at work," "poison sprayed here," "detour, loose surface," etc.

The ways in which I receive information for these paragraphs are many and varied, but this month gave me another new way, to wit, a telegram from Berri addressed to me at the best broadcasting station in Australia. It did not mention the sender's name, but it went as follows: "Miracle at Berri, Slobberg (BSL) operating on 40 metres, never thought live to see it—Signed The old man of the river." Who was it Laurel?

John SBW has migrated to Broken Hill and will be heard on 40, 20 and 10 metres. He will still be heard with a VKS call on the air. His unbounded enthusiasm will soon be directed toward various hobbies, and it is to be hoped that he has at last found his niche in the scheme of things. Best of luck John.

Federal Executive has written to the VKS Division expressing its delight in the delivery of a further batch of certificates, and from the said letter it appears that they have been waiting for a new rubber stamp of the signature of the newly appointed President before distributing them. They have now stamped the certificates with the old rubber stamp, and recipients of the certificates will now know why they are signed with the old President's signature (of course, he is young in spirit). As a consequence of the many members of the radio fraternity I would have thought that the new President could have signed the certificates with a pen and a pen in less than ten minutes. Possibly someone will whisper "this to Federal Executive" some day.

SKW has been very busy erecting a tower which only wants navigation lights on it to make it visible all over Australia. Ever so often he has been seen perched on top of it, and it comes down when some broadcast listener tries to fasten an serial on to it.

SMH has also erected a metal tower, although Fred intends to put a six metre beam on top very shortly. The recently built 6 metre Rx tower seems to try and work its way up, although the noise level is so low that it does not seem right. There is a thought with some people that they do not realize that they are such experts.

Ray Nicholson is building his Tx so as to

be ready to take the air at short notice, and it all is to be believed he is doing a very creditable job of the wiring. No call sign as yet, but will be expected at any moment.

SKC has been very inactive as far as Ham Radio is concerned, the reason being that he has had his car down giving it the annual overhaul. This does not stop me however, he is only waiting for the next contest to start to be well and truly in it. Hughe loves contests.

In these days of rising prices and shortage

of money, it gives me great pleasure to draw

members' attention to the fact that at our

recent Council meeting, to win the twenty

years ago the VKS Division was paying £300

per annum for its meeting rooms as against

£15 per annum today. That rocks you,

doesn't it.

----- TASMANIA

The July meeting was well attended and the highlight of the evening was the auction sale, which was conducted by TLE, a quantity of old stock radio components procured from a local warehouse was the material under offer. This not only was an added source of revenue, but provided a means of introducing the v.h.f. crystal clock-up unit secured by TLE for a few shillings proved, on checking, unseparable, much to Joe's dismay, although a good samaritan came along out with a spare crystal and the unit worked again happy ever after.

Due to the fact a number of members are unable to attend every meeting owing to shift work, etc., the gear offered was spread over two meetings, thus enabling everyone to have an opportunity.

Seen in attendance was TDW which is his first appearance since returning home, minus the famous pipe. Busy engaged in re-building a BC103 is TDW, plus a number of others to 20 and 40. Some members are intent in making tape recorders, those mainly interested are TAF, TAJ, TKA and TOM. Athol, as mentioned in previous notes, is still working on his unit and from every indication he is doing well, this unit should be pleasure to own.

Preparations for the forthcoming "R.D." Contest is well under way at VKA with a new 100 watt and believe it or not Ken is adding modulation which will be powered with zero bias. Another member of the Institute, Bill Ham, who resides at Richmond and should shortly be heard on 40; Harold, an ex-marine operator, will use 15-20 watts for a start and will be x-ray controlled, equipped, is a double conversion nine tube super.

Surprised to hear TAJ on 40 lately, must be a while since Athol has worked any. As is losing his "Tackle" accent (ardon that one) and I am sure he will regain it! In a letter from TCF, Charlie mentioned much hard work has caused some inactivity from his area although still listens to the news each Sunday. Believe is about to purchase a rig suitable for contesting on 144 Mc., which will be made available through the disposals section of the institute.

The best DX for the month worked in the south eastern area must be credited to Bill with a "DW4" call, located, which ultimately proved to be a W4. Sure Ken, but I will agree band conditions were absolutely lousy, in fact I couldn't copy it at all. Heard lately was TDJ working on 40, as most of the time he has been well over the 100 country mark and from his signals, should have no trouble in working the most elusive DX. With TX on 10, 20, 40 and 80, TKJ should prove a great asset as far as the southern coast is concerned. The radio power on all four bands and with one of the "cheap" AR7 Rx's, should not be a good score which will help. Hope all the north, and particularly the north-western gang, will be available for the forthcoming contest. TAJ has made all arrangements to obviate the ten minute break, which he has to make last year, and hopes to top the Tasmanian score once more.

TDJ having trouble with his built rig and vowed to sell it again, they don't right themselves. Temporarily, 144 Mc. transmissions have been terminated at TMY owing to his departure to the bush. Talking of bush two more members are there, they were TJA and TAJ. John was seen making enquiries regarding the new "TM" Rx, which should be coming through shortly.

In closing, members are reminded that 11th August is the date for the Remembrance Day Contest, and it is the wish of the Institute to have a bigger and better participation from this Division. As the new scoring system was adopted mainly on recommendations from this State, every effort must be made so as to make a good score will result, so do the right thing even if you only can make a small score, it all adds up. Remember the thought behind it and let us make this an outstanding success.

NORTHERN ZONE

TKR is your scribe owing to VVKW being QRL. The June meeting saw quite a crowd at our

very comfortable rooms in the quadrant. Fortunately, or rather I should say, by destiny, had been arranged as we had quite a lot of business left over from previous meetings. Seems a very sound idea to leave the agenda open to the members, who in turn can add important matters, while leaving the chairman free to add one night set aside for business schedules, to clean up that loose ends. We thrive on controversy here, so an evening's business is usually entertaining.

VZL still plugging the 144 converter and well on the road to success, was very surprised to receive a QSL this week from OXSMG, worked in February, 1948, posted in 1949, received in 1951; you work it out, I can't. I'm still waiting for mine. VVKW is 144 consistently, but still working on the 7 Mc. rig. THQ also keeping the v.h.f. alive as well as putting out the usual signal on 7 Mc. phone. Len's quality on 40 never varies and could be a good object lesson to all, especially to those experiencing the same. THY well installed in the new QTH and getting the few kinks out of the 7 Mc. rig.

TDS gracing the city a few days ago, is busy swotting for exams, best of buck Bill: hope to hear and see you more often when these stations are cleared. TLE still busily putting the new QTH and will be a mighty pleased man when he sees his name in the change of address column. TLE paid us a visit last meeting, could do with your company more often Bill. TLE provided a bit of entertainment, writing some technical articles for "A.R.", his last was entitled "The Match-Maker" and momentarily I wondered if that was the reason he was too busy to pen these notes the month. We have quite a few amateur stations here now, very keen and may be permitted to repeat what I said here some many months ago, remember the associate membership is the stepping stone to full membership, so if you are working on TDK think this has been fairly quiet, temporarily gave 280 Mc. away when I found how much the p.p. TBS drifted, so built a new h.c. set instead.

HAMADS

9d. per line, minimum 3/-.

Advertisements under this heading will only be accepted from Individual Members who desire to dispose of equipment which is their own personal property. Copy must be received by 5th of the month, and remittance must accompany advertisement. Calculation of cost is based on an average of six words a line. Dealers' advertisements not accepted in this column.

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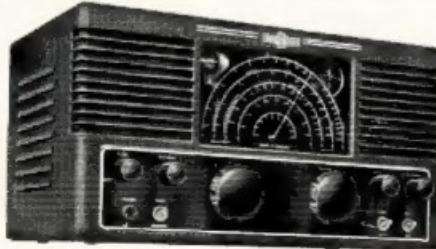
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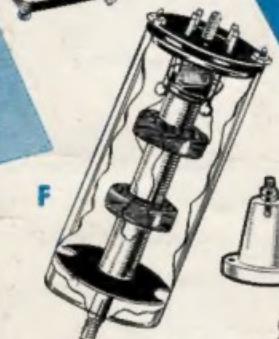


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